



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/185,057	11/03/98	LIEN	C IDT-1548

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2099 GATEWAY PLACE SUITE 320  
SAN JOSE CA 95110-1017

MM42/1101

EXAMINER

HO, H

ART UNIT

PAPER NUMBER

2818

3

DATE MAILED: 11/01/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**09/185,057**

Applicant(s)  
**Lien et al.**

Examiner  
**Hoi V. Ho**

Group Art Unit  
**2818**



☐ Responsive to communication(s) filed on \_\_\_\_\_

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-32 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-6 and 8-32 is/are rejected.

☒ Claim(s) 7 is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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1. This office acknowledges receipt of the following items from the Applicant:  
Information Disclosure Statement (IDS) filed on 11/3/98 and it was considered.
2. Claims 1-32 are presented for examination.

***Claim Rejections - 35 U.S.C. § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person will be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 1-5 and 14-19 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Schultz et al. US Pat. No. 5,859,791.

Figure 9 of Kim is directed to a content addressable memory cell comprising: a static random access memory cell, SRAM, (latch of Fig. 9) for storing a data value; a first set of one or more bit lines (bl and bln) wherein the data value is written to and read from the SRAM cell; a second set of bit lines (k and kn) coupled to receive a comparison data value. See column 4, line 55 et seq., column 7, lines 2-41.

5. Claim 20 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Jiang US Pat. No. 5,351,208 (IDS).

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Figure 2 of Jiang is directed to a content addressable memory (CAM) cell having a match line (214) that carries a signal (connection between 210 and 211) to indicate whether a match or a no-match condition exists within the CAM cell, the match line having a signal swing equal to one transistor threshold voltage ( $0V - V_t$  of 75). See column 1, lines 56 to column 2, line 60.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz et al. US Pat. No. 5,859,791.

Schultz discloses all the subject matter except for the claimed limitation of a diode element coupled to a first node N6. However, Figure 9 of Schultz shows a transistor 723 connected to the first node (connection of 721 and 725) is an equivalent structure known in the art. Therefore, because these two diode element and transistor were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the transistor for the diode element whose on or off state controlled by a state of the first node.

8. As per claims 21-32 (method), they encompass the same scope of invention as to that of claims 1-5 and 14-19 (apparatus claims) except they draft in method format instead of apparatus format. The claims are therefore rejected for the same reason as set forth above.

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9. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. Kim et al. (5,699,288) disclose a compare circuit for content addressable memories.

**Allowable Subject matter**

11. The following is a statement of reasons for the indication of allowable subject matter:

Claim 7 is considered allowable since the prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Schultz et al. (5,859,791), Kim et al. (5,699,288), and Jiang (5,351,208), taken individually or in combination, do not teach the claimed invention having a diode element, a local mask transistor, and a first node N6 coupled in series.

12. When responding to the office action, Applicants' are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

13. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02 (b)).

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to whose telephone number is (703) 308-4839. The examiner can normally be reached on Mon. - Thur. from 7:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms, can be reached on (703) 308-4910. The fax phone number for this Group is (703) 308-7722. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-0956.

*im*

**H. Ho**

September 27, 1999

  
David Nelms  
Supervisory Patent Examiner  
Technology Center 2800